

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-3 (canceled)

Claim 4 (previously presented): A liquid crystal display panel fabricated by bonding a first substrate with a signal electrode formed on a face thereof to a second substrate with an opposite electrode formed on a face thereof at a given spacing provided by a peripheral sealing section interposed therebetween on the periphery of a display region such that the signal electrode is opposed to the opposite electrode, and by installing a liquid crystal layer in between the spacing, said signal electrode comprising:

a peripheral electrode formed substantially over the entire area of the display region;

pattern electrodes formed in isolation within the peripheral electrode; and

wiring electrodes formed across the peripheral electrode with a gap provided between the same and the peripheral electrode for selectively applying a voltage to the respective pattern electrodes,

wherein said opposite electrode is installed over the entire area of the display region in such a way as to oppose the signal electrode,

wherein said liquid crystal layer undergoes changes in optical properties depending on whether or not a voltage is applied between the signal electrode and the opposite electrode,

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

wherein wiring sealing sections formed of a transparent sealing material are installed between the wiring electrodes and the opposite electrode in the display region such that portions of the display region where the wiring sealing sections are installed always have a transmittance substantially equal to that of portions of the liquid crystal layer where a voltage is applied, and

wherein the wiring sealing sections are formed so as to be separated from the peripheral sealing section.

Claim 5 (previously presented): A liquid crystal display panel fabricated by bonding a first substrate with a signal electrode formed on a face thereof to a second substrate with an opposite electrode formed on a face thereof at a given spacing provided by a peripheral sealing section interposed therebetween on the periphery of a display region such that the signal electrode is opposed to the opposite electrode, and by installing a liquid crystal layer in between the spacing, said signal electrode comprising:

a peripheral electrode formed substantially over the entire area of the display region;
pattern electrodes formed in isolation within the peripheral electrode; and
wiring electrodes formed across the peripheral electrode with a gap provided between the same and the peripheral electrode for selectively applying a voltage to the respective pattern electrodes,

wherein said opposite electrode is installed over the entire area of the display region in such a way as to oppose the signal electrode,

wherein said liquid crystal layer undergoes changes in optical properties depending on whether or not a voltage is applied between the signal electrode and the opposite electrode,

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

wherein wiring sealing sections formed of a transparent sealing material are installed between the wiring electrodes and the opposite electrode in the display region such that portions of the display region where the wiring sealing sections are installed always have a transmittance substantially equal to that of portions of the liquid crystal layer where a voltage is applied, and

wherein the wiring sealing sections are formed of a sealing material which is lower in hardness and softer than a sealing material for the peripheral sealing section.

Claim 6 (currently amended): A liquid crystal display panel fabricated by bonding a first substrate with a signal electrode formed on a face thereof to a second substrate with an opposite electrode formed on a face thereof at a given spacing provided by a peripheral sealing section interposed therebetween on the periphery of a display region such that the signal electrode is opposed to the opposite electrode, and by installing a liquid crystal layer in between the spacing, said signal electrode comprising:

a peripheral electrode formed substantially over the entire area of the display region;

pattern electrodes formed in isolation within the peripheral electrode; and

wiring electrodes formed across the peripheral electrode with a gap provided between the same and the peripheral electrode for selectively applying a voltage to the respective pattern electrodes,

wherein said opposite electrode is installed over the entire area of the display region in such a way as to oppose the signal electrode,

wherein said liquid crystal layer undergoes changes in optical properties depending on whether or not a voltage is applied between the signal electrode and the opposite electrode,

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

wherein wiring sealing sections formed of a transparent sealing material are installed between the wiring electrodes and the opposite electrode in the display region such that portions of the display region where the wiring sealing sections are installed always have a transmittance substantially equal to that of portions of the liquid crystal layer where a voltage is applied, and

wherein the liquid crystal layer is a scattering type liquid crystal layer comprising liquid crystal and transparent solids composed of organic polymers and an ultraviolet absorbing layer is installed on at least either of the first substrate and the second substrate, in regions extending from overlapping regions where either or both of the first substrate and the second substrate overlap the peripheral sealing section and the wiring sealing sections, respectively, towards portions of the liquid crystal layer in the vicinity of the peripheral edge of the overlapping regions.

Claim 7 (cancelled):

Claim 8 (previously presented): A liquid crystal display panel fabricated by bonding a first substrate with a signal electrode formed on a face thereof to a second substrate with an opposite electrode formed on a face thereof at a given spacing provided by a peripheral sealing section interposed therebetween on the periphery of a display region such that the signal electrode is opposed to the opposite electrode, and by installing a liquid crystal layer in between the spacing, said signal electrode comprising:

a peripheral electrode formed substantially over the entire area of the display region;
pattern electrodes formed in isolation within the peripheral electrode; and

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

wiring electrodes formed across the peripheral electrode with a gap provided between the same and the peripheral electrode for selectively applying a voltage to the respective pattern electrodes,

wherein said opposite electrode is installed over the entire area of the display region in such a way as to oppose the signal electrode,

wherein said liquid crystal layer undergoes changes in optical properties depending on whether or not a voltage is applied between the signal electrode and the opposite electrode,

wherein wiring sealing sections formed of a transparent sealing material are installed between the wiring electrodes and the opposite electrode in the display region such that portions of the display region where the wiring sealing sections are installed always have a transmittance substantially equal to that of portions of the liquid crystal layer where a voltage is applied, and

wherein the pattern electrodes are target electrodes for auto focus in the shape of a target pattern which are installed in the finder of a camera,

the liquid crystal layer is a scattering type liquid crystal layer comprising liquid crystal and transparent solids composed of organic polymers, and

when a voltage is applied between the peripheral electrode of the signal electrode and between the target electrodes, and the opposite electrode, the entire area of the display region including the wiring sealing sections is turned into a transparent state having an identical transmittance, and only a region of a target electrode among the target electrodes where a voltage is selectively not applied or a voltage applied is reduced is turned into an opaque state due to scattering of light in the liquid crystal layer.

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

Claim 9 (original): A liquid crystal display panel according to claim 8, wherein the wiring sealing sections are provided over the gaps between the wiring electrodes and the peripheral electrode of the signal electrode as well.

Claim 10 (original): A liquid crystal display panel according to claim 8, wherein the wiring sealing sections are formed of the same sealing material as a sealing material used for the peripheral sealing section so as to be continuous with each other.

Claim 11 (original): A liquid crystal display panel according to claim 8, wherein the wiring sealing sections are formed so as to be separated from the peripheral sealing section.

Claim 12 (original): A liquid crystal display panel according to claim 8, wherein the wiring sealing sections are formed of a sealing material which is lower in hardness and softer than a sealing material for the peripheral sealing section.

Claim 13 (original): A liquid crystal display panel according to claim 8, wherein an ultraviolet absorbing layer is installed on at least either of the first substrate and the second substrate, in regions extending from overlapping regions where either or both of the first substrate and second substrate overlap the peripheral sealing section and the wiring sealing sections, respectively, towards portions of the liquid crystal layer in the vicinity of the peripheral edge of the overlapping regions.

Claim 14 (original): A liquid crystal display panel according to claim 8,

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

wherein at least a part of the peripheral sealing section is transparent, and a light source for emitting light to the liquid crystal layer from outside of the peripheral sealing section through the transparent part thereof is installed.

Claim 15 (original): A liquid crystal display panel according to claim 14, wherein the light source is disposed at a location opposite to a shorter side of the wiring sealing sections, suited for emitting light from outside of the peripheral sealing section.

Claim 16 (original): A liquid crystal display panel according to claim 14, wherein the light source is a light source for emitting colored light.

Claim 17 (original): A liquid crystal display panel according to claim 14, wherein a width of gaps between the target electrodes and the peripheral electrode is in a range of 30 to 70 μm .

Claim 18 (original): A liquid crystal display panel according to claim 14, wherein an adiabatic sealant is provided in the peripheral region of the first substrate and the second substrate.

Claim 19 (original): A liquid crystal display panel according to claim 18, wherein portions of the adiabatic sealant other than a portion thereof on a side where the light source is disposed double as a light absorption layer for absorbing light in color of light emitted by the light source.

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

Claim 20 (original): A liquid crystal display panel according to claim 14,
wherein a convex lens or a diffuser, for irradiating the liquid crystal layer in whole with
light emitted from the light source, is installed between the light source and the transparent part
of the peripheral sealing section.

Claim 21 (New): A liquid crystal display panel according to claim 4, where the liquid
crystal layer is a scattering type liquid crystal layer comprising liquid crystal and transparent
solids composed of organic polymers.

Claim 22 (New): A liquid crystal display panel according to claim 5, where the liquid
crystal layer is a scattering type liquid crystal layer comprising liquid crystal and transparent
solids composed of organic polymers.

Claim 23 (New): A liquid crystal display panel according to claim 4, wherein an
ultraviolet absorbing layer is installed on at least either of the first substrate and the second
substrate, in regions extending from overlapping regions where either or both of the first
substrate and the second substrate overlap the peripheral sealing section and the wiring sealing
sections, respectively, towards portions of the liquid crystal layer in the vicinity of the peripheral
edge of the overlapping regions.

Claim 24 (New): A liquid crystal display panel according to claim 5, wherein an
ultraviolet absorbing layer is installed on at least either of the first substrate and the second

Response under 37 C.F.R. §1.111
Attorney Docket No. 010026
Serial No. 09/744,025

substrate, in regions extending from overlapping regions where either or both of the first substrate and the second substrate overlap the peripheral sealing section and the wiring sealing sections, respectively, towards portions of the liquid crystal layer in the vicinity of the peripheral edge of the overlapping regions.